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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/480,986 | 01/10/2000 | MICHAEL BOLOTSKI | 18035-001010 | 5021 |

20350 7590 12/03/2001

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EXAMINER

PIZIALI, JEFFREY J

ART UNIT PAPER NUMBER

2673

DATE MAILED: 12/03/2001

Please find below and/or attached an Office communication concerning this application or proceeding.

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| | | | |
|------------------------------|-------------------------------|---------------------------------|--|
| Office Action Summary | Application No. 09/480,986 | Applicant(s) BOLOTSKI ET AL. | |
| | Examiner Jeff Piziali | Art Unit 2673 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 January 2000.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 January 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
 If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
 a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. This application has been filed with informal drawings which are acceptable for examination purposes only. Formal drawings will be required if the application is allowed.
2. Figures 1A and 1B should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g).

Claim Objections

3. Claim 9 is objected to because of the following informalities: on line 18, the claim ends in mid-sentence. Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

5. Claims 1-21 are rejected under 35 U.S.C. 102(e) as being anticipated by McKnight (6,144,353).

Regarding claim 1, McKnight discloses a method for operating a display having a plurality of pixels, comprising: applying a transition voltage to the pixels [Fig. 3A, 204]; applying a first paint voltage to a pixel [Fig. 3A, 206]; waiting a predetermined time period; illuminating the pixel [Fig. 3A, 208 & 210]; applying the transition voltage to the pixels [Fig. 3A, 212]; applying a second paint voltage to the pixel [Fig. 3A, 214]; waiting the predetermined time period; and illuminating the pixel [Figs. 3A-B, 216 & 218]; wherein the transition voltage is between the first paint voltage and the second paint voltage applied to the one pixel element (see Column 11, Line 26 - Column 12, Line 47).

Regarding claims 2, 10 and 18, McKnight discloses illuminating the pixel with an illumination source [Fig. 2A, 114] of first and second colors (see Column 9, Lines 24-28).

Regarding claims 3 and 11, McKnight discloses applying the transition voltage to the pixels [Fig. 3B, 220] applying a third paint voltage to the pixel [Fig. 3B, 222]; waiting the predetermined time period; and illuminating the pixel [Fig. 3B, 224 & 226]; wherein comprising an illumination source [Fig. 2A, 114] of first, second and third colors (see Column 9, Lines 24-28).

Regarding claims 4, 12 and 19, McKnight discloses red, green and blue colors (see Column 9, Lines 24-28).

Regarding claim 5, McKnight discloses illuminating the pixel with an illumination source [Fig. 2A, 114] (see Column 9, Lines 16-43).

Regarding claims 6, 14 and 20, McKnight discloses applying the transition voltage to all the pixels at one time (see Column 11, Line 59 - Column 12, Line 12).

Regarding claims 7 and 15, McKnight discloses applying the transition voltage to a first row of pixels, and thereafter applying the transition voltage to a second row of pixels (see Column 11, Line 33 - Column 12, Line 12).

Regarding claims 8 and 16, McKnight discloses applying the transition voltage to a first column of pixels, and thereafter applying the transition voltage to a second column of pixels (see Column 11, Line 33 - Column 12, Line 12).

Regarding claim 9, this claim is rejected under the reasoning applied in the above rejection of claim 1, furthermore, McKnight discloses a transaction circuit [Fig. 2A, 110] coupled to each pixel; a paint circuit [Fig. 2A, 102] coupled to the transaction circuit; a timer circuit [Fig. 2A, 112] coupled to the paint circuit; and an illumination circuit coupled to the timer circuit [Fig. 2A, 114 & 116] (see Column 9, Lines 16-43).

Regarding claim 13, McKnight discloses the illumination circuit comprises a monochromatic illumination source (see Column 9, Lines 24-25).

Regarding claim 17, this claim is rejected under the reasoning applied in the above rejection of claim 1, furthermore, McKnight discloses an initialization circuit [Fig. 2A, 110] coupled to the pixels; a driving circuit [Fig. 2A, 102] coupled to the initialization circuit; and an illumination circuit [Fig. 2A, 114 & 116] coupled to the driving circuit (see Column 9, Lines 16-43).

Regarding claim 21, McKnight discloses the initial voltage [Fig. 3A, 212] is between the first [Fig. 3A, 206] and second [Fig. 3A, 214] drive voltages (see Column 11, Line 33 - Column 12, Line 12).

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Wakabayashi et al. (5,172,108), Edelson et al. (5,196,834), Yamaguchi et al. (5,627,557) and Verhulst (5,627,560) are cited to further evidence the state of the art pertaining to display operating methods.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeff Piziali whose telephone number is (703) 305-8382. The examiner can normally be reached on Monday - Friday (6:30AM - 3PM).

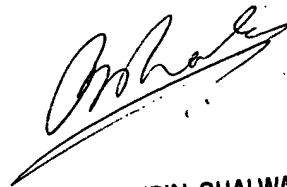
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached on (703) 305-4938. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.



J.P.

November 30, 2001



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SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600